

Appl. No. 10/682,088
Reply to Office Action of March 14, 2008

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REMARKS/ARGUMENTS

Additional Fee Payment

The Transmittal form submitted with this response authorizes a fee payment to be deducted from Deposit Account No. 19-2550 for an additional independent claim. In the voluntary amendment submitted December 16, 2005, two additional claims were added to the application, one of which was an independent claim. Additional claim fees were paid for the two extra claims in excess of the 27 already paid for, but the fee for the independent claim, in excess of the 4 already paid for, was inadvertently omitted. The Patent Office was authorized to charge payment of this extra fee in the Transmittal form submitted on December 16, 2005, but apparently no such fee was deducted from Applicant's Agent's deposit account.

Status of Claims

Claims 1 to 29 are currently pending in the application.

35 U.S.C. § 103(a) Rejections

In rejecting claims under 35 U.S.C. § 103(a), the examiner bears the initial burden of establishing a prima facie case of obviousness. *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992). See also *In re Piasecki*, 745 F.2d 1468, 1472 (Fed. Cir. 1984). It is incumbent upon the examiner to establish a factual basis to support the legal conclusion of obviousness. See *In re Fine*, 837 F.2d, 1071, 1073 (Fed. Cir. 1988). In so doing, the examiner is expected to make the factual determinations set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966), viz., (1) the scope and content of the prior art; (2) the differences between the prior art and the claims at issue; and (3) the level of ordinary skill in the art. The Graham factors, including secondary considerations when present, are the controlling inquiries in any obviousness analysis. Once the findings of fact are articulated, Office personnel must provide an explanation to support an obviousness rejection under 35 U.S.C. 103. *KSR Int'l. Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1741 (2007). According to *KSR*, for the Patent Office to properly combine references in support of an obviousness rejection, the Patent Office must identify a reason why a person of ordinary skill in the art would have sought to combine the respective teachings of the applied references. Only if

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this initial burden is met does the burden of coming forward with evidence or argument shift to the appellant. *See Oetiker*, 977 F.2d at 1445. *See also Piasecki*, 745 F.2d at 1472. Obviousness is then determined on the basis of the evidence as a whole and the relative persuasiveness of the arguments. *See Oetiker*, 977 F.2d at 1445; *Piasecki*, 745 F.2d at 1472.

Applicant's analysis below demonstrates that the Examiner has failed to properly conform to the aforementioned guidelines for a finding of obviousness under 35 U.S.C. 103, that is the factual determinations set forth in *Graham v. John Deere Co.* and the reason why a person of ordinary skill in the art would have sought to combine the respective teachings of the applied references as required by *KSR*.

Claims 1 to 8, 11 to 18 and 21 to 29

The Examiner has stated that claims 1 to 8, 11 to 18 and 21 to 29 are unpatentable under 35 U.S.C. 103(a) over McAllister *et al.* (U.S. Patent Publication No. 2001/0010681) in view of Sesmun (U.S. Patent No. 7,313,631) and Shoaib *et al.* (U.S. Patent No. 7,161,914).

Claim 1

Missing Elements

The following is a discussion of why the cited references do not disclose all the elements of the rejected claims. While it may be considered that "the mere existence of differences between prior art and an invention does not establish the invention's non-obviousness", Office personnel must explain why the difference(s) between the prior art and the claimed invention would have been obvious to one skilled in the art (Examination Guidelines for Determining Obviousness Under 35 U.S.C. 103 in view of the Supreme Court Decision in *KSR international Co. v. Teleflex Inc.*, published in Federal Register Vol. 72, No. 195 October 10, 2007). As such, if elements from a claim are not disclosed by the combination of cited references and no valid reasoning is provided why the missing elements would be obvious, this may provide a strong basis for why a claim should not be rejected based on obviousness.

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With regard to claim 1, the Examiner alleges that McAllister *et al.* discloses "selecting a route via the network for packets from the terminal in dependence upon the network information and information dependent upon wireless communications between the terminal and at least one of the nodes; and supplying packets with information relating to the selected route". The Examiner specifically points to the Background of the Invention section that refers to a publication by E.M. Spiegel, that discloses "an alternate path routing scheme based on a combination of progressive control and source routing" (emphasis added). Source routing is utilized to effect the path computation. A determined routing path together with a cost threshold and a crank back limit are included in a setup message of a packet and this is forwarded along the determined routing path. Progressive control is utilized once the method encounters a blocked link. It is then the responsibility of an intermediate node at which the packet and setup message are stopped to determine another route in the network to allow the packet to reach the desired endpoint.

The Examiner alleges that the limitation "in dependence upon the network information and information dependent upon wireless communications between the terminal and at least one of the nodes" is disclosed by McAllister in that E.M. Spiegel discloses that the source routing utilized for path routing "is a function of link cost and quality of service" (paragraph [0007], emphasis added).

In claim 1, "network information" is information regarding the network that is received in the receiving step of the claim. "Information dependent upon wireless communications between the terminal and at least one of the nodes" is information that is not forwarded from other nodes regarding the link, but know information available in the terminal relating to its wireless links with at least one other node in the network. Therefore, routing decisions are based on information about links in the network for which the wireless node is not directly connected, that is the information being received over wireless links, and information available in the terminal relating to its wireless links with at least one other node in the network. There is no suggestion or specific disclosure in McAllister *et al.* of using both a) information about links in the network, the information being received over wireless links and b) information available in the terminal relating to its wireless links with at least one other node in the network.

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The Examiner concedes that McAllister is silent on implementing the system in a wireless environment. However, it is alleged that Sesmun discloses wireless ATM. Sesmun is directed to different routing scheme than that disclosed in McAllister and the present application. Sesmun discloses a communication network in which terminals are mobile in the network and in which mobility must be managed. The network has an associated name server and the name server stores a care-of-address for the terminal, as well as a permanent address. As the terminal moves from one subnet of the network to another the care-of-address is changed to reflect the current subnet. Therefore, the input of the name of the mobile terminal identifies via the care-of-address the subnet in which the terminal is currently located. The network is divided with domains each with its own name server as the terminal moves from its home domain to a foreign domain, the name server of that foreign domain may be updated with details of the mobile terminal so that any query to the terminal originating in the foreign domain may be resolved within that foreign domain. A care-of-address may be stored in the name server of that foreign domain. Then, the address of the name server of that foreign domain may be used as the care-of-address in the name server of the home domain (Abstract). While it may be considered that Sesmun discloses an environment that includes wireless terminals, when considered in its entirety Applicant submits that Sesmun is not directed to "selecting a route via the network for packets from the terminal in dependence upon the network information and information dependent upon wireless communications between the terminal and one of the nodes", but is directed to improving routing based on having a physical address for a destination to avoid excessive re-routing of communication by a home domain server when a destination terminal is in a foreign domain.

The Examiner concedes that the combination of McAllister *et al.* and Sesmun is silent on the step of "receiving, via a respective wireless link from at least one of a plurality of wireless access nodes forming a network, network information relating to links between the nodes". The Examiner alleges that Shoaib *et al.* discloses wireless communications and a receiving step equal to that recited in the present application.

The Examiner alleges that Shoaib *et al.* discloses the receiving step at column 2, lines 4-12. This portion of Shoaib *et al.* discloses a mobile terminal being provided information

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about network topology and target base stations by a location server that continuously updates this information for base stations in a certain geographical area. While Shoaib *et al.* may be considered to receive information about network topology and target base stations that appears similar to what is recited in claim 1, Shoaib *et al.* in its entirety is directed to using this information for controlling handoff processes, not specifically for the purpose of a wireless device using the information for routing packets through the network.

For at least the reasons discussed above, Applicant respectfully submits that the combination of McAllister *et al.*, Sesmun and Shoaib *et al.*, do not teach all the limitations recited in claim 1, as alleged by the Examiner. Furthermore, the Examiner has failed to explain why the missing features would be obvious to one skilled in the art. Without all the limitations of claim 1 being disclosed by the three references and no reason provided by the Examiner why these missing limitations would be obvious, it is not reasonable to expect to arrive at the invention in the manner claimed.

Reason to Combine

Once the scope of the prior art is ascertained, the content of the prior art must be properly combined. An obviousness inquiry requires review of a number of factors, including the background knowledge possessed by a person having ordinary skill in the art, to determine whether there was an apparent reason to combine the elements of the prior art in the fashion claimed by the present invention. For the Patent Office to combine references in support of an obviousness rejection, the Patent Office must identify a reason why a person of ordinary skill in the art would have combined the references *KSR Int'l v. Teleflex, Inc., No. 04-1350, slip op. at 14 (U.S., Apr. 30, 2007)*, *Id.* at 15. Even if the Patent Office is able to articulate and support a suggestion to combine the references, it is impermissible to pick and choose elements from the prior art while using the application as a template.

Applicant submits that there is no suggestion of a desirability of the claimed invention in the references that would serve as a reason for one skilled in the art to combine the references.

The Examiner alleges that it would have been obvious to modify the system of McAllister *et al.* by implementing the system in a wireless ATM environment as suggested by Sesmun. The

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Examiner further states that such a modification could be performed according to the teachings of ATM standards. It is alleged such a modification would benefit the system since wireless networks are prominent in today's networking environment.

Applicant submits that McAllister *et al.* does not disclose making a routing decision exclusively at the terminal, but instead relies upon progressive control exerted by one or more intermediate nodes along the routing path to ensure that the packets are delivered. An intermediate node that is unable to forward a call over the determined routing path due to congestion or physical failure makes a decision to re-route the call. However, if the node cannot make the decision to re-route the call in a forward direction toward the destination, it sends a crank back message back along the routing path to allow a proceeding node to make a decision to re-route the call. Applicant submits that one skilled in the art would not combine McAllister *et al.* and Sesmun in the manner suggested by the Examiner, as McAllister *et al.* relies on intermediate nodes in the routing path to make routing decisions.

Furthermore, as discussed above, Sesmun is directed to a sending terminal obtaining a care-of-address for a destination terminal from a name server and using that address for routing of communications to the destination terminal. Sesmun is directed to improving routing to a destination by knowing a more direct path to the destination terminal based on a physical address. There is no suggestion or disclosure in Sesmun of "selecting a route via the network for packets from the terminal in dependence upon the network information and information dependent upon wireless communications between the terminal and one of the nodes" that would provide a reason to combine the references.

In addition, Applicant submits that the Examiner's selection of Sesmun is based on hindsight solely for its alleged disclosure of a wireless terminal. The Examiner concedes that Sesmun does not disclose the step of receiving as recited in claim 1, as the combination of McAllister *et al.* and Sesmun does not disclose receiving, and the Examiner has not cited Sesmun as suggesting or disclosing the steps of selecting and supplying, which when taken together include all three method steps performed by the wireless device in claim 1. As Sesmun does not disclose the active method step limitations of claim 1, it is improbable that one skilled in the art would consider such a reference in attempting to arrive at the claimed invention.

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The Examiner further alleges that it would have been obvious to modify the combined system of McAllister *et al.* and Scsmun by having the network send update network information, as disclosed in Shoaib *et al.* It is alleged that such a modification would benefit the system by insuring that the terminal has updated information in order to make the routing decision.

Applicant submits that the reason set forth by the Examiner is not sufficient as a reason for combining the references as Shoaib *et al.* merely teaches a mobile terminal obtaining information, there is no context in Shoaib *et al.* of routing packets based on that information. There is no suggestion or disclosure in Shoaib *et al.* of using the obtained information for routing information that would provide a reason to combine the references. Applicant submits that the Examiner has simply selected limitations in hindsight from Shoaib *et al.* that appear to be equivalent to those recited in claim 1.

For at least the reasons discussed above, it is respectfully submitted that the 35 U.S.C. §103(a) rejection of claim 1 is deficient for its failure to comply with the U.S. Supreme Court's requirements recently articulated in *KSR*.

Applicant submits that the Examiner has failed to meet the initial burden of establishing a prima facie case of obviousness. It is respectfully requested that the Examiner reconsider and withdraw the obviousness rejection to claim 1.

Claim 2

Missing Elements

Claim 2 is dependent upon claim 1 and includes the additional limitation "in the terminal, monitoring a status of the selected route". The Examiner alleges that McAllister *et al.* discloses this limitation in paragraph [0009], in the form of a connection setup message being cranked back to an earlier node in a routing path and that node trying to re-route the setup message. There is no suggestion or disclosure in paragraph [0009] that the routing scheme proposed by E.M. Spiegcl, which is being discussed in McAllister *et al.*, includes crank back all the way back to a wireless terminal. Furthermore, even if the setup message was cranked back all the way to the wireless terminal, which the Applicant does not concede, there is no suggestion

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or disclosure that this results in any kind of "monitoring of the selected route" being performed by the wireless terminal.

Reason to Combine

For at least the reasons discussed above with regard to the rejection to claim 1, Applicant submits that there is insufficient reason to combine the references as alleged by the Examiner.

Furthermore, as an additional reason why there is insufficient reason to combine the references, since McAllister *et al.* is silent on "in the terminal, monitoring a status of the selected route", and the portion of McAllister *et al.* cited by the Examiner discloses that nodes along the selected path are used to re-route the connection set-up message, Applicant submits that McAllister *et al.* teaches away from a wireless terminal performing any "monitoring of the selected route", as the wireless terminal is relying on the nodes along the routing path to manage routing the setup message.

For at least the reasons discussed above, Applicant submits that claim 2 patentably distinguishes over the cited references of McAllister *et al.*, Sesmun and Shoaib *et al.* It is respectfully requested that the Examiner reconsider and withdraw the obviousness rejection to claim 2.

Claims 3 and 15

Missing Elements

Claim 3 is dependent upon claim 1 and includes the additional limitation "in the terminal, receiving and monitoring network information to determine a status of the selected route and, selectively in dependence upon the determined status, selecting a new route via the network for packets from the terminal". The Examiner alleges that McAllister *et al.* discloses this limitation in paragraph [0009], in the form of a connection setup message being cranked back to an earlier node in a routing path and that node trying to re-route the setup message. There is no suggestion or disclosure in paragraph [0009] that the routing scheme proposed by

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E.M. Spiegel, which is being discussed in McAllister *et al.*, includes crank back all the way back to a wireless terminal. Furthermore, even if the setup message was cranked back all the way to the wireless terminal, which the Applicant does not concede, there is no suggestion or disclosure that this results in any kind of "monitoring of the selected route" is performed by the wireless terminal. In addition, there is no suggestion or disclosure in McAllister *et al.* that the wireless terminal selects a new route via the network for packets from the terminal selectively in dependence upon the determined status as recited in claim 3.

Reason to Combine

For at least the reasons discussed above with regard to the rejection of claim 1, Applicant submits that there is insufficient reason to combine the references as alleged by the Examiner.

Furthermore, as an additional reason why there is insufficient reason to combine the references, Applicant submits that for similar reasons discussed above with regard to the rejection of claim 2, McAllister *et al.* teaches away from what is recited in the additional limitation of claim 3.

Claim 15 recites similar subject matter to claim 3 and patentably distinguishes over the combination of references for at least the same reasons discussed above.

For at least the reasons discussed above, Applicant submits that claims 3 and 15 patentably distinguish over the cited references of McAllister *et al.*, Sesmun and Shoaib *et al.* It is respectfully requested that the Examiner reconsider and withdraw the obviousness rejection to claims 3 and 15.

Claims 14, 24, 27 and 28

Claims 14 and 24 are additional independent method claims that recite respective methods that are performed in the terminal. Claim 27 is an independent claim directed to a method of "routing packets from a wireless communication terminal via nodes of a network" wherein the steps are controlled by the wireless communication terminal. Claim 28 is an

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independent claim directed to a method of communication in a wireless access node of a network wherein the node receives packets including routing information selected by the wireless communication terminal. As claims 14, 24, 27 and 28 all pertain to a wireless terminal operating in a similar fashion to claim 1, Applicant submits that claims 14, 24, 27 and 28 patentably distinguish over McAllister *et al.*, Sesmun and Shoaib *et al.* It is respectfully requested that the Examiner reconsider and withdraw the obviousness rejection of claims 14, 24, 27 and 28.

Claims 4 to 8, 11 to 13, 16 to 18, 21 to 23, 25, 26 and 29

Claims 4 to 8, 11 to 13, 21 and 22 are dependent, either directly or indirectly, on claim 1. Claims 16 to 18 and 23 are dependent, either directly or indirectly, on claim 14. Claims 25 and 26 are dependent, either directly or indirectly, on claim 24. Claim 29 is dependent on claim 28. For at least the reason of their dependence on claims 1, 14, 24 and 28, Applicant submits that dependent claims 4 to 8, 11 to 13, 16 to 18, 21 to 23, 25, 26 and 29 patentably distinguish over the combination of McAllister *et al.*, Sesmun and Shoaib *et al.*

It is respectfully requested that the Examiner reconsider and withdraw the obviousness rejection of the identified dependent claims.

Claims 9, 10, 19 and 20

Claims 9, 10, 19 and 20 have been rejected under 35 U.S.C. 103(a) as being unpatentable over McAllister *et al.*, Sesmun and Shoaib *et al.* and in view of various other references. Claims 9 and 10 depend indirectly on claim 1 and claims 19 and 20 depend directly on claim 14. In view of Applicant's submission regarding the 35 U.S.C. 103 rejection of claims 1 and 14, dependent claims 9, 10, 19 and 20 should also be patentable.

In view of the above discussion, the Examiner is respectfully requested to withdraw the 35 U.S.C. 103 rejections of claims 9, 10, 19 and 20.

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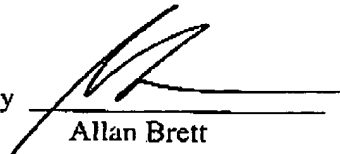
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In view of the foregoing, early favorable consideration of this application is earnestly solicited.

Respectfully submitted,

HAMID MAHMOOD, ET AL.

By


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Dated: June 16, 2008

RAB:MSS:meg